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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,149	06/01/2006	Noboru Saeki	10844-119US (205148)	2801
570 7590 03/13/2009 PANITCH SCHWARZE BELISARIO & NADEL LLP ONE COMMERCE SQUARE 2005 MARKET STREET, SUITE 2200 PHILADELPHIA, PA 19103			EXAMINER CROWELL, ANNA M	
			ART UNIT 1792	PAPER NUMBER
			MAIL DATE 03/13/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/596,149	Applicant(s) SAEKI ET AL.	
	Examiner Michelle Crowell	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Ogisu (J.P. 62-256840A).

Referring to the abstract Ogisu discloses a plasma discharger in which a pulse voltage is applied to a pair of rod-like discharge electrodes (6) (7) to produce a corona discharge between the discharge electrodes (6) (7), and a surface of a workpiece (W) is irradiated with excited species including plasma produced by the corona discharge, wherein the pair of rod-like discharge electrodes (6) (7) are formed into an asymmetrical shape, and a pointed end (6a) of one discharge electrode (6), and a pointed end (7a) of another discharge electrode (7) are located at different phase heights on an axis along a plasma ejecting direction.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita (U.S. 2001/0030541) in view of Ogisu (J.P. 62-256840).

Referring to Figure 12 and paragraphs [0087]-[0094], Fujita discloses a plasma discharger in which a pulse voltage is applied to a pair of rod-like discharge electrodes 21 (V-like shape) to produce a corona discharge between the discharge electrodes (par.[0015]), and a surface of a workpiece is irradiated with excited species including plasma produced by the corona discharge.

Fujita fails to teach wherein the pair of rod-like discharge electrodes are formed into an asymmetrical shape, and a pointed end of one discharge electrode, and a pointed end of another discharge electrode are located at different phase heights on an axis along a plasma ejecting direction.

Referring to the abstract, Ogisu teaches a plasma discharger wherein the pair of rod-like discharge electrodes 52 are formed into an asymmetrical shape, and a pointed end of one discharge electrode, and a pointed end of another discharge electrode are located at different phase heights on an axis along a plasma ejecting direction in order to make allowances for a

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dispersion of dimensional accuracy and to compensate for the shape of the substrate. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention for the rod-like discharge electrodes of Fujita to be formed into an asymmetrical shape, and a pointed end of one discharge electrode, and a pointed end of another discharge electrode are located at different phase heights on an axis along a plasma ejecting direction as taught by Ogisu in order to make allowances for a dispersion of dimensional accuracy and to compensate for the shape of the substrate. In addition, the shape of the claimed rod-like discharge electrodes was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular shape of the claimed container was significant.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita (U.S. 2001/0030541) in view of Ogisu (J.P. 62-256840) as applied to claim 1 above, and further in view of Chhabra (U.S. 4,882,028).

The teachings of Fujita in view of Ogisu have been discussed above.

Fujita in view of Ogisu fail to teach one of the discharge electrodes is formed into a substantially L-like shape.

Referring to column 6, lines 23-33, Chhabra teaches a discharge electrode is formed into a substantially L-like shape. It should be noted that the shape of the claimed rod-like discharge electrode is considered a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular shape of the claimed container was significant. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify one of the discharge electrodes of Fujita in view of Ogisu to be formed into a substantially L-like shape as taught by Chhabra since the shape of the claimed rod-like

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discharge electrode is considered a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular shape of the claimed container was significant.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita (U.S. 2001/0030541) in view of Ogisu (J.P. 62-256840) and Chhabra (U.S. 4,882,028) as applied to claim 2 above, and further in view Ogisu et al. (J.P. 62-106935).

The teachings of Fujita in view of Ogisu and Chhabra have been discussed above.

Fujita in view of Ogisu and Chhabra fail to teach that a workpiece which is treated while involving rotation.

Referring to the abstract, Ogisu et al. teach a plasma discharger wherein the workpiece 1 is treated while involving rotation. It is conventionally known in the art to rotate the workpiece in order to provide uniform plasma distribution. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to rotate the workpiece of Fujita in view of Ogisu and Chhabra as taught by Ogisu et al. in order to provide uniform plasma distribution.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle Crowell whose telephone number is (571)272-1432. The examiner can normally be reached on M-Th (9:30 -6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on (571) 272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michelle Crowell/
Examiner, Art Unit 1792

/Parviz Hassanzadeh/
Supervisory Patent Examiner, Art Unit 1792